

ENVIRONMENTAL ASSESSMENT

Case File No.: A-51647

AK-040-04-EA-032

Applicant: Alaska Pipeline Company
c/o Enstar Natural Gas Company
3000 Arctic Boulevard
Anchorage, Alaska 99503

Type of Action: Amendment to Existing Mineral Leasing Act Right-of-Way, 2880

Location: Section 24, T. 10 N., R. 4 W., Seward Meridian

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Preparing Office: Bureau of Land Management
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Date: August 2, 2004

I. INTRODUCTION:

A. Background:

In August 1961, the Bureau of Land Management (BLM) issued the last of four decisions that granted a 50 foot right-of-way (R/W) in part, to Alaska Pipeline Company (APC) for a 12 inch natural gas pipeline. This R/W covered the portion of the pipeline that crossed the Chugach National Forest (CNF) and a portion in the Kenai National Wildlife Refuge (KNWR). The three previous decisions covered all of the remaining federal land on the Kenai Peninsula for the Kenai to Anchorage Pipeline. In 1970, APC installed a cathodic protection system in the W½ of Section 24, T. 10 N., R. 4 W., Seward Meridian, for this pipeline. A cathodic protection system is designed to protect the pipeline from corrosion. A cathodic protection system requires replacement at regular intervals, as the system itself corrodes, rather than the pipeline. In 1984, APC replaced the system it had installed in 1970.

In 1978, BLM issued an additional R/W that followed the same corridor for a 16 inch pipeline. The second pipeline is 10 feet from the first pipeline and runs parallel to it. The cathodic protection system for the first pipeline also supplies cathodic protection to the second pipeline.

In 1980, the passage of the Alaska National Interest Lands Conservation Act (ANILCA), required this portion of the CNF to be transferred into the KNWR. This area is now managed by the United States Fish and Wildlife Service (USF&WS). However, portions of this pipeline system cross BLM managed land, and BLM issues Mineral Leasing Act R/Ws when two or more federal agencies manage lands involved in a project.

In 1984, the KNWR issued a Special Use Permit for APC to rehabilitate the cathodic protection at this site. Unknown to the refuge, APC had placed the cathodic protection equipment outside of the authorized R/W.

As the Proposed Action will be located within the KNWR, Refuge staff will be issuing stipulations that will become part of any authorization BLM issues for this R/W.

B. Purpose and Need for the Proposed Action:

In 2003, APC realized the existing cathodic protection system needed to be upgraded, based upon the discovery a pipeline leak near Mystery Creek. Placement of new cathodic equipment is needed to adequately protect the pipeline from corrosion. The existing cathodic protection system operates near 2 amps. However, once it is rehabilitated, the electrical current transmitted through the

cathodic protection system will be increased to near 5 amps, thereby prolonging pipeline integrity.

C. Conformance with Land Use Plan:

The Proposed Action has been reviewed and found to be in compliance with the Southcentral Management Framework Plan (MFP), March 1980. Objective Number L-1 of the MFP states the BLM intends to “Satisfy state and local government needs as well as public and/or private demonstrated needs for land as they arise.”

D. Relationship to Statutes, Regulations, Policy, Plans and Other Environmental Analyses:

The authority to issue the R/W is the Mineral Leasing Act of 1920 and regulations promulgated in 43 CFR § 2880.

49 CFR subpart D §195.236 requires that “each component in the pipeline system must be provided with protection against external corrosion.” First, the pipeline must have external protective coating designed to mitigate corrosion of the component, which this pipeline does. Secondly, 49 CFR subpart D §195.242(a) requires that “a cathodic protection system must be installed for buried or submerged facilities to mitigate corrosion that might result in structural failure.”

II. PROPOSED ACTION AND ALTERNATIVE

A. Proposed Action:

APC acting through its agent company, Enstar Natural Gas, proposes to rehabilitate its cathodic protection for a portion of the Kenai to Anchorage Natural Gas Pipelines. To accomplish this task, Enstar personnel will install a new cathodic system, install a new 8 foot by 8 foot equipment shed on a portion of their existing pipeline R/W, and connect the existing old anode cable to equipment that will be housed in the new equipment shed. While on site, they will also be repairing the roof of an existing cabin located immediately adjacent to the R/W. Additionally, APC is applying for a R/W for its existing cathodic system and all its associated components. See site diagram labeled “APC MP 64.5 Burnt Island Anode Bed.”

Equipment Requirements

Equipment to be brought to the site includes: One lowboy 25-ton equipment transport trailer pulled by a 5-ton 55 Komatsu bulldozer; two electric plants for light generation; one “325” cat backhoe; one welding rig truck; one pick-up truck and 3 ATVs for personnel transportation to the project site. Other equipment transported on the trailer will be building supplies for the shed, one 2-inch water pump, cable, anodes, camping equipment, food, etc. Equipment will need to be

refueled at the project site. Fuel will be transported in four 55-gallon barrels aboard the trailer. Refueling will be done with a hand pump, to reduce the potential of accidental spills. Each barrel will be placed in a spill containment dike when in use. Spill clean up supplies will be on hand during refueling.

Installing a Cathodic System:

To install the Cathodic System, Enstar employees will install a power source, a DC rectifier and a junction box which will all be housed inside the new equipment shed. The shed will be within the existing R/W for the pipeline. From the junction box a 1-2 inch diameter anode cable will be run about 335 feet down a wooded upland embankment. In the embankment area, the cable will be buried 12 to 36 inches deep depending on the amount of bedrock encountered. The cable run will require clearing vegetation from a 10 foot wide trail to allow for digging the trench and passage of a backhoe. Less than 10 trees are expected to require removal if a straight route is chosen; less if the route meanders to avoid some trees. At the bottom of the embankment is a grass sedge marsh transition zone extending for ½ mile to Chickaloon Bay. In this marsh zone, the anode cable will continue for 20 to 100 feet, where it will fork in two directions. Each fork will extend about 150 feet in different directions. Along each fork of the cable, Enstar will place sacrificial anodes. The cable and anodes will be buried to a depth of 36 inches in the marsh transition zone. The bulldozer will be used to help clear the trail for the back hoe in the embankment area. The back hoe will be used for the trenching. Excavated material will be stored to the side of the trench. Upon placement of the cable and anodes, the trenches will be backfilled with side-cast material. No foreign fill material will be imported or used. The impacted areas will then be smoothed over and seeded with a seed mixture specified by the BLM or USF&WS. For an explanation on Cathodic Protection, see the attached Cathodic Protection Diagram.

The Existing Support Cabin:

Enstar will replace the roof on the existing support cabin located immediately adjacent to the R/W. Currently the cabin houses generators and telemetry improvements. All equipment for pipeline operations will be moved to the new equipment shed, which will be located inside the existing R/W. At the completion of the project, Enstar proposes to surrender the cabin to the USF&WS.

8' x 8' Equipment Shed:

The new 8 foot by 8 foot equipment shed will be constructed on a portion of the existing pipeline R/W. The shed will house generators and telemetry equipment taken from the existing cabin, the rectifier and a junction box. The shed will be covered with brown metal siding. Two 1-2 foot deep small trenches will be dug

radiating out of the shed area; one for the new anode cable and one for the old anode cable.

Access to Project Site:

The USF&WS will be issuing a special use permit that will grant access to the project site across the KNWR. Access to the work site will be along Mystery Creek Road from the Sterling Highway to its intersection with the APC pipeline R/W. An unimproved four wheel drive (4x4) route follows the R/W diverting from the R/W at several upland bypass locations where the R/W traverses impassable wetland terrain. This route has been used by Enstar vehicles for maintenance and inspections and seasonally by the public for Refuge activities. No clearing of vegetation is needed along Mystery Creek Road or the R/W 4x4 route. The segment of 4x4 R/W route needed for project access fords five anadromous fish streams: Mystery Creek, North Fork Chickaloon River, East Fork Chickaloon River, Big Indian Creek, and Little Indian Creek, and wetland areas. The crossing of the streams will require a permit from the State of Alaska, Department of Natural Resources (DNR). When the permit is issued, the USF&WS will then issue a special use permit to allow access across the KNWR to the work site.

Project Site Logistics:

The duration of the project will last approximately two weeks for construction and five days on either side for mobilization and demobilization. Six to ten workers will remain at the job site for the duration of the project. Sleeping will be accommodated in tents and the existing support cabin. Cooking will take place in the existing support cabin. An existing outhouse at the site will be used. All solid waste generated during the job will be removed at the completion of the project.

B. No Action Alternative:

The No Action Alternative would be to deny the request to update the cathodic protection. Under this alternative APC would be out of compliance with 49 CFR subpart D §195.242(a).

III. AFFECTED ENVIRONMENT

A. Critical Elements:

The following critical elements of the human environment have been analyzed and are either not present or will not be affected by the Proposed Action or the No Action Alternative.

Air Quality

Areas of Critical Environmental Concern

Environmental Justice

Farmlands (Prime or Unique)

Flood plains
Invasive, Non-Native Species
Native American Religious Concerns
Wastes (Hazardous/Solid)
Water Quality (Surface/Ground)
Wild and Scenic Rivers

1. ANILCA Section 810 Clearance:
The Proposed Action and Alternative have been analyzed and determined to have no effect on any subsistence uses or needs under Section 810.
2. Cultural Resources:
The Alaska Heritage Resources Survey (AHRS) was consulted as well as the original survey for this section of pipeline (Boraas 1978). A small historic cabin (SEW-0164) is located approximately a mile away, but no cultural resources are known for the Area of Potential Effect. No further consultation is necessary under section 106 of the National Historic Preservation Act.
3. Threatened and Endangered (T&E) Species:
The Proposed Action and Alternative were evaluated in accordance with the Endangered Species Act of 1973, as amended. The Proposed Action and Alternative were determined to have no effect on threatened and endangered plants and animals and their habitats. No consultation with the USF&WS is necessary pursuant to Section 7 of the Act.
4. Wetlands/Riparian Zones:
The Chickaloon Bay estuary has been identified in this document as a grass sedge marsh transition zone that extends for ½ mile to Chickaloon Bay. The estuary has been identified as an ANILCA “special value area” and as a critical waterfowl nesting/resting and critical habitat area by both federal and state agencies. DNR, CNF, Alaska Department of Fish and Game and KNWR have signed a cooperative agreement for protection and management of the area.
5. Proposed Wilderness:
The lands involved in this proposal are currently designated as part of the KNWR. Section 1317 of ANILCA directed the Secretary of Interior to study lands in Alaskan refuges and make recommendation for areas considered suitable for inclusion in the National Wilderness Preservation System. In 1985, the final KNWR Comprehensive Conservation Plan/EIS/Wilderness Review proposed 195,000 acres of new wilderness.

The Chickaloon/Two Indian Area was one of the two areas proposed. Under the guidelines of the plan this area is designated for “minimal” management. This means the area is administratively managed to maintain the natural environment with very little evidence of human caused change. The USF&WS Regional Director signed the formal Wilderness proposal and Record of Decision and forwarded it to the Secretary of Interior for further action. To date a recommendation has not been forwarded to the President.

B. Land Status:

The lands involved in this proposal are currently designated as part of the KNWR. The USF&WS issues authorizations for organizations or people to use this land. However, this Proposed Action is an ancillary facility to a pipeline that crosses federal lands administered by two federal agencies. 43 CFR § 2882.2-2 requires the BLM to accept applications for uses of land under these circumstances. BLM must consult with and accept stipulations from the other agencies involved when processing these applications.

C. Vegetation:

The pipeline is located in the wooded uplands consisting of white spruce, paper birch, alder and willow. The ditch for the Cathodic Anode System starts in the uplands and ends in a sedge/grass marshland.

D. Soils:

Upland soils are shallow, well drained, very strongly acid, silty loess over very gravelly glacial till, cobbles or boulders. Marsh soils are clayey marine deposits or loamy waterlaid sediment bordering Cook Inlet. There is no permafrost. There is slight to moderate limitations for construction in the uplands. (Map Unit S05, Exploratory Soil Survey of Alaska; February 1979)

E. Wildlife:

Moose occur in the areas associated with riparian willow shrubs and mixed forest. Predators such as wolves and brown bear forage in open habitats, and black bear, lynx and marten in shrub and forest areas. Brown and black bears may be present and concentrate their activities on rivers and streams during salmon runs. Resident and migrant land birds nest and feed in shrub and forest habitats. The coastal tidal mudflats and associated vegetation zones of the entire region support breeding and migrating ducks, geese and shorebirds.

F. Fisheries:

Anadromous fish in the project area include chinook, pink, sockeye, coho, and chum salmon, round whitefish, and Pacific lamprey. Resident fish include Dolly

Varden, rainbow trout, and longnose sucker. The Chickaloon River system is the largest producer of salmon on the northern portion of the Kenai Peninsula, with runs of all five Pacific salmon species. Big Indian and Little Indian Creeks also provide habitat for Chinook, coho, and sockeye salmon.

G. Visual Resources:

Because of the long term disturbance within the R/W corridor, this area is managed under a Class III Objective for Visual Resource Management. The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

The Embankment area and the Marsh transition zone have not been disturbed by previous authorized development. This area would qualify as an area managed under a Class I Objective for Visual Resource Management. The goal would be to preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention.

IV. ENVIRONMENTAL CONSEQUENCES

A. Impacts of the Proposed Action:

1. Vegetation:

From aerial photos provided by the company showing the two cathodic system routes, it appears that the shortest routes were chosen and each route appears to traverse areas with less tree and shrub cover. Under story vegetation, grasses, mosses, lichens etc., will be temporarily removed from the ditch route and stockpiled. This same material including cut trees will be placed back on the bare soil surface of the completed and filled ditch. Vegetation is expected to reoccupy the site through natural regeneration. No seeding or fertilization is expected to be required, unless steep slopes mandate artificial revegetation to prevent erosion.

2. Wildlife:

Encounters between crews and bears may result in the killing of bears for defense of life and property.

Migrating ducks, geese, and shorebirds will be moving through the coastal zones in Cook Inlet in April, and nesting in late April and May. Birds may be disturbed and excluded from the area because of construction activities. Birds may abandon nest sites if disturbed during nesting or incubation.

3. Fisheries:

Access to the site via the unimproved 4x4 route that follows the APC R/W requires the fording of several anadromous fish streams by heavy equipment and highway vehicles. The potential adverse impacts of instream crossing include the introduction of contaminants from the equipment (i.e., fuel, lubricants, and engine coolant), and excessive siltation resulting from the operation of track and rubber tire equipped vehicles on the stream banks and bed. Contaminants and siltation can adversely affect resident and anadromous fish, and fish eggs deposited down stream of the crossing site through toxicity or by inhibiting their ability to use oxygen.

4. Visual Resources:

The amount of visual disturbance created by the Proposed Action is very small compared to the amount of existing visual contrast. In the embankment area, the cable run is shown on diagrams to meander, avoiding straight lines. By contouring with natural features the level of visual disturbance will be lessened. In the marsh transition zone, disturbance of the ground will cause a visual impact that will be very noticeable to the casual observer during and immediately after construction. Once the area is regraded, vegetation should regenerate sufficiently so that changes will be unnoticeable to the casual observer.

5. Socioeconomic:

There is a positive socioeconomic impact in boosting the effectiveness of cathodic protection within the pipeline system. By insuring adequate cathodic protection the pipeline is prevented from corroding. This in turn helps to insure the uninterrupted delivery of natural gas to the metropolitan Anchorage area.

B. Impacts of the No Action Alternative:

Under a No Action Alternative Enstar would operate the pipelines as they do now. There would be no impacts because the project would not be constructed. It would be reasonable to expect that APC would modify their application or re-apply to install Cathodic Protection in another location. If they reapplied or modified their request, BLM would then analyze the impacts of any new proposals.

C. Cumulative Impacts:

In the 1960s when APC installed the first pipeline in this area the impacts to a variety of resources would have been dramatic. Vegetation, wildlife, and fisheries would have been impacted. According to the R/W issued for the pipeline up to

230 acres of land could be cleared of vegetation for the pipeline route. Periodic maintenance of the line would have created short-term disruption to resident wildlife. Access along the pipeline utilizes a route that crosses anadromous streams and wetland areas which may affect water quality and fisheries on a short term basis. With the installation of the second pipeline through this area in 1978 similar impacts would have been created as with the installation of the first pipeline. Since it followed the same route, vegetation that had regrown would have been removed, and wildlife and fisheries may have also been impacted. Since 1978, some maintenance of the line has taken place, but nothing on the scale of installation of a pipeline. The creation of the access road for the pipeline has created a desire by sport hunters to utilize the road to access this remote area. Since the early 1970s the KNWR has opened the road and pipeline maintenance route to use by hunters on a limited basis during the fall. The Proposed Action will affect vegetation, wildlife, fisheries and a special management area. It also may require heavy equipment to ford several streams at a time when salmon are more likely to be present. Less than an acre will be disturbed and will be an incremental increase in the scope of the overall project.

D. Mitigation Measures:

To avoid disturbance and nest abandonment of migrating and nesting ducks, geese and shorebirds, construction activities should be avoided from May 1st to August 1st.

Stipulations contained in the special use permit issued by KNWR may include contaminant spill preventative measures. The permit may also require stream crossings to be timed to reduce impacts to water quality and disturbance to spawning fish species.

Work crews should avoid leaving food or garbage while working in the area to avoid attracting bears and the possible taking of bears for the defense of life and property. Food and garbage should be removed from the site on a daily basis.

Cable run through the embankment area should avoid removal of trees as much as possible. Direction of clearing for cable placement should follow natural terrain to break-up the visual impact of the project.

V. CONSULTATION AND COORDINATION:

A. Individuals and Agencies Consulted

Greg Balogh, U.S. Fish & Wildlife Service
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B. List of Preparers:

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Jake Schlapfer, Recreation Planner
Bruce Seppi, Wildlife Biologist

C. Sources Cited:

Borass, Alan, 1978, Archaeological survey of Alaska Pipeline Company Pipeline Right-of-Way—Trapper Joe Lake to Burnt Island, Kenai Peninsula, Alaska. Unpublished report in BLM casefile AA-51647.

Exploratory Soil Survey of Alaska; February 1979, reference Map unit S05